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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,285	10/13/2003	Hiromi Yunoki	2003-2030.ORI	3331
23165	7590	12/14/2004	EXAMINER	
ROBERT J JACOBSON PA 650 BRIMHALL STREET SOUTH ST PAUL, MN 551161511			PUTTLITZ, KARL J	
			ART UNIT	PAPER NUMBER
			1621	
DATE MAILED: 12/14/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/684,285

Applicant(s)

YUNOKI ET AL.

Examiner

Karl J. Puttlitz

Art Unit

1621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 4-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

The outstanding rejection under section 103 has been withdrawn since Applicant's Admission nor Sugi teach or suggest to those of ordinary skill a step of including a liquid binder of 7.0 to 10.0 in pH.

The following rejection is necessitated by Applicant's Amendment:

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7, step d) recites that the catalyst is "gently extracted from the stainless-steel-made reaction tube. The claim is indefinite because it is unclear exactly how the term "gently" limits the claim. Removing this term would overcome the rejection.

The following new ground of rejection is now entered.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent No. 4,892,856 to Kawajiri et al. (Kawajiri).

The claims of the application are drawn to, inter alia, a process for production of acrylic acid, which comprises the step of carrying out catalytic gas phase oxidation of acrolein in the presence of molecular oxygen, thereby producing the acrylic acid with the step of carrying out catalytic gas phase oxidation using a catalyst which is obtained by a process that includes the steps of: heating a mixed liquid of starting materials including molybdenum and vanadium as essential components; and then molding the resultant dried material with a liquid binder : and then calcining the resultant molding; wherein the liquid binder is an aqueous liquid of 7.0 to 10.0 in pH. See claim 4, as amended.

Kawajiri teaches a catalyst suitable for the production of acrylic acid from acrolein, which comprises molybdenum and vanadium as essential components. In particular, Example I teaches that water and ammonium metavanadate and ammonium molybdate prepared an aqueous solution. This was evaporated to dry solidness and milled. Then the powder was charged thereto together with distilled water as a binder with blowing heated air at 90 C.

The difference between the catalyst preparation set forth in the claims and that described by Kawajiri, is that Kawajiri fails to explicitly state that the liquid binder is an aqueous liquid of 7.0 to 10.0 in pH. However, the liquid binder used in Kawajiri is water. Therefore, since the binder is water, a liquid binder is an aqueous liquid of 7.0 to 10.0 in pH is within the motivation of those of ordinary skill. Applicant is invited to submit objective evidence to the contrary.

With respect to claim 6, since Kawajiri substantially teaches all of the aspects of the recited catalyst, those of ordinary skill would expect that the recited physical strength would also be a necessary aspect of the catalyst described by Kawajiri.

#### ***Allowable Subject Matter***

Claim 7 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

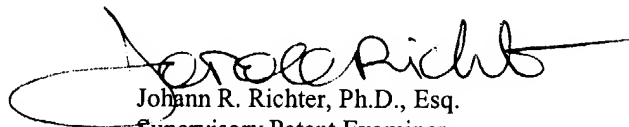
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl J. Puttlitz whose telephone number is (571) 272-0645. The examiner can normally be reached on Monday-Friday (alternate).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on (571) 272-0646.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

Karl J. Puttlitz  
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